

Work Order ID 158167

Monday, March 13, 2017 10:45:21 AM

158167

Page 1

Item ID: D4780-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Cover Mounting Bracket Assembly
Start Date: 3/13/2017 Start Qty: 2.00 ***2*** Cust Item ID:
Required Date: 3/22/2017 Req'd Qty: 2.00 ***2*** Customer:
Reference: SCHEDULE/S

Approvals: Process Plan: DAS Date: MAR 13 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: 21 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***
5-89

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4780	A								
100	FLOW WATER JET	0.01							
100						<u>2</u>	<u>PR</u>	<u>17/03/14</u>	
Waterjet	Memo	0.03							
FLOW CNC Waterjet	1-Cut D4780-1 as per Dwg Dwg Rev: <u>A</u> Prog Rev: <u>A</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110						<u>2</u>	<u>PR</u>	<u>17/03/14</u>	
QC	Memo	0.00							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120						<u>2</u>			
QC	Memo	0.01							
Quality Control									

DAS
38
5-89

MAR 14 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval				
Description Work Order Deviation			Disposition					
						Completed By		
						Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval					
Root Cause			FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____						
Misidentified ☐	Past Due ☐							

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130 *130* Brake NC Brake NC	Bend as per dwg NC BRAKE Memo	0.02 0.02			DAS 30 9-89				MAR 14 2017
140 *140* Small Fab Small Fab	 Memo 1- C'sink holes as per dwg	0.00 0.02							 DAS 36 9-89
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01							 DAS 38 9-89 MAR 15 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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158167

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N900040100

Setup Start *NS1*

Stop *NS2*

Stop *NS2*

Start Date: 3/13/2017 **Start Qty:** 2.00 ***2***

Cust Item ID:

Required Date: 3/22/2017 **Req'd Qty:** 2.00 ***~***

Customer:

Reference: SCHEDULE/S

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160 Chemical Conversion Coat per QSI005 4.1

0.00

160

Memo

0.04

Hand Finishing

2017/03/15
BEB

165 QC7-Inspect Chemical Conversion Coat

0.00

165

Memo

0.00

OC

Quality Control

2 ϕ 170B-24. DAS 34 9-89

170 Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00

170

Memo

0.02

Powdercoat

Powder Coating

START TIME:

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

8:35
9:05

2 of 17-03-27

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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180 *180* QC Quality Control	QC3- Inspect Part Finish Memo	0.00 0.00				<u>2</u>			DAS 38 9-88 MAR 27 2017
190 *190* Small Fab Small Fab	Memo 1- Install nutplate as per dwg	0.00 0.03				<u>2x</u>			DAS 36 9-88 17/03/27
200 *200* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01				<u>2</u>			DAS 38 9-88 MAR 28 2017

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210	Identify as per dwg & Stock Location: <u>Stops</u>	0.00							
210									
Packaging	Memo	0.00				<u>2</u>			
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.03							
Quality Control									

17/3/30 *[Signature]*
mf
17-3-29

DQA: _____ Date: _____



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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Monday, March 13, 2017 10:45:21 AM

Page 1
T

Work Order ID: 158167

158167

Parent Item: D4780-041

D4780-041

Parent Item Name: Fwd Cover Mounting Bracket Assembly

Start Date: 3/13/2017

Required Date: 3/22/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A 13.03.13 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.032		Purchased	No			100	sf	157.7336	0.0722	0.152			

M6061T6S 032

6061-T6 Sheet 0.032"

**

PR 17/03/14

Location

Loc Qty

Loc Code

MAT021

157.733563

m131352

5.920037

m135724

55.813526

m136942

96

0.18

MS20426AD3-4

Purchased

No

190

Each

8,560.000

4

8

MS20426AD3-4

RIVET

**

17/03/27 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

6654

m134294

1933

m136444

4721

ST312

1906

m134294

1906

135274
8x

MS21059L3

Purchased

No

190

Each

97.0000

2

4

MS21059L3

Nut Plate

**

17/03/27 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

14

M136047

14

ST301

83

M136450

18

M136835

65

137075
4x

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

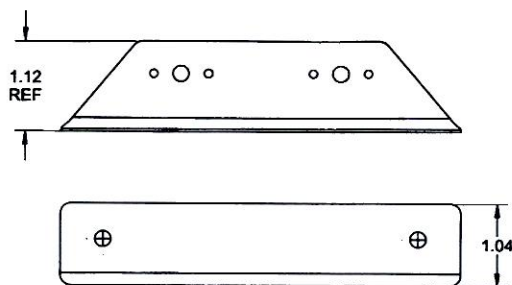
QA Closed: _____ Date: _____

Work Order update only ☐

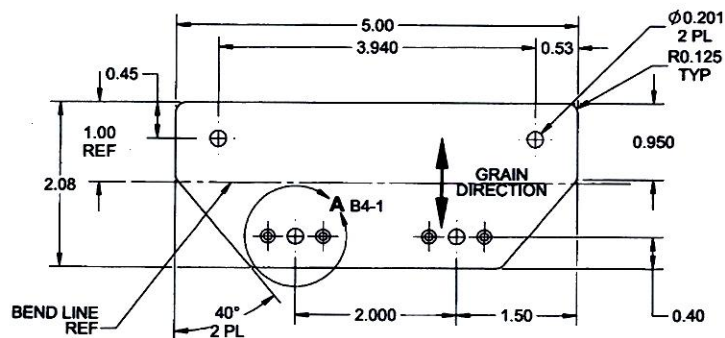
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
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Root Cause		FAULT CATEGORY																																																															
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Misidentified ☐	Past Due ☐																																																																

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 158167
MCS
170313

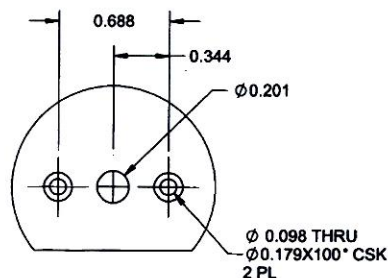
QTY -041	P/N	DESCRIPTION
X	D4780-041	FWD COVER MOUNTING BRACKET ASSY
1	D4780-1	FWD COVER MOUNTING BRACKET
4	MS20426AD3-4	RIVET, CSK
2	MS21059L3	NUTPLATE



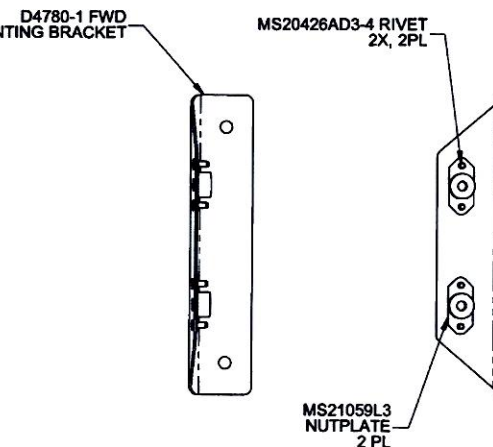
D4780-1 FWD COVER MOUNTING BRACKET
(MAKE FROM D4780-1F)



D4780-1F FLAT PATTERN



DETAIL A B7-1
SCALE 2X
2 PL



D4780-041 FWD COVER MOUNTING BRACKET ASSY

RELEASED
2013-03-11

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.032" THICK, PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 (REF. DART SPEC. M6061T6S.032)
- 2) FINISH: D4780-1F: NONE, D4780-1: CHEMICAL CONVERSION COATING PER DART QSI 005 4.1, POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3, D4780-041: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4780-041" AND B/N USING FINE POINT PERMANENT INK MARKER PER DART QSI 044 METHOD 6.1
- 7) WEIGHT: 0.02 lbs
- 8) PROFILE PER DRAWING FILE "D4780-1F-REVA.DXF"

A	NEW RELEASE	DB	13.03.01
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AB	DRAWING NO.	REV. A
MFG. APPR.		D4780	SHEET 1 OF 1
APPROVED		TITLE	FWD COVER MOUNTING BRACKET ASSY
DE APPR.		SCALE	NTS
DATE	13.03.01	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	